

REMARKS

In response to the Office Action dated 29 November 2004, the applicant requests reconsideration of the above-identified application in view of the following remarks. Claims 1-3, 20-24, 26-29, 31-37, 39-45 and 47-48 are pending in the application, and are rejected. None of the claims are amended herein.

Information Disclosure Statement

The applicant filed an Information Disclosure Statement with a Form 1449 on 10 March 2003. A copy of the Form 1449 has not been returned to the applicant. The applicant respectfully requests that all of the references listed on the Form 1449 be considered by the Examiner. Pursuant to the provisions of MPEP 609, the applicant requests that a copy of the Form 1449 filed on 10 March 2003, with all of the listed references initialed as being considered by the Examiner, be returned to the applicant with the next official communication.

Rejection of Claims Under §103

Claims 1-3, 20-24, 26-29, 31-37, 39-45 and 47-48 were rejected under 35 USC §103(a) as being unpatentable over Li (U.S. Patent No. 5,058,132) in view of Epstein (U.S. Patent No. 4,093,870) and Mano (Computer Engineering Hardware Design, 1988, pgs.130-132). The applicant respectfully traverses.

Each of the independent claims 1, 20, 32, and 40 recite, among other elements, a Johnson counter comprising an input JK flip-flop, an output JK flip-flop, and a plurality of middle JK flip-flops. The remaining claims are variously dependent on, and recite further features with respect to, the independent claims 1, 20, 32, and 40.

The MPEP requires a suggestion and a reasonable expectation of success for a rejection under 35 USC §103:

“To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable

expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.”¹

A Federal Circuit opinion states that the suggestion or motivation to combine references and the reasonable expectation of success must both be found in the prior art.²

The Federal Circuit has emphasized the need for the PTO to furnish evidence in support of claim rejections under 35 USC § 103 in *In re Lee*:

“When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness.....The factual inquiry whether to combine references must be thorough and searching....It must be based on objective evidence of record.”³

The Federal Circuit has also indicated that the suggestion to select and combine references must be “clear and particular”:

“[T]he best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.....the showing must be clear and particular.”⁴

Li relates to a clock distribution system and shows a circuit called a Johnson counter 114 in Figure 2. A prior Office Action stated that “Li does not disclose the particular design of the Johnson counter.”⁵ Epstein relates to an apparatus for testing reflexes and shows a circuit called a Johnson counter 54 in Figure 4. Epstein’s Johnson counter 54 has only three JK flip-flops.

Mano describes different types of flip-flops, and contrasts the operation of each. Specifically, Mano describes JK flip-flops, D flip-flops, SR flip-flops, and T flip-flops.⁶ Mano does not discuss Johnson counters, or the relative merits of different Johnson counters.

Neither Li nor Epstein show a Johnson counter comprising an input JK flip-flop, an output JK flip-flop, and a plurality of middle JK flip-flops as is recited in the independent claims 1, 20, 32, and 40. Mano does not show or discuss a Johnson counter. Therefore, even as combined, Li, Epstein, and Mano do not show the claimed invention.

1 MPEP 2143.

2 MPEP 2143 citing *In re Vaack*, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991).

3 *In re Lee*, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

4 *In re Dembiczak*, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

5 Final Office Action dated April 7, 2004, page 2.

6 Mano, page 131.

There is also no clear and particular evidence of a suggestion or motivation to combine Li, Epstein, and Mano. The Office Action stated that:

“[I]t would have been obvious to implement the 5 stages (flip flop circuits) Johnson counter of Li with a five JK flip flop circuit arranged as in Epstein because JK flip flop is reliable thus preventing the counter from erroneous operation as taught by Mano.”⁷

Epstein does not show a counter with five JK flip flops. Epstein’s Johnson counter has only three JK flip-flops. More significantly, Mano does not show or discuss Johnson counters. Mano does not comment on the reliability of any particular Johnson counter, and does not teach that any particular Johnson counter suffers from erroneous operation. One skilled in the art would not be motivated by Mano to modify the Johnson counter of Li.

There is no evidence of the rationale stated in the Office Action and quoted above for combining Li, Epstein, and Mano as is required by *In re Lee*. There is no showing of clear and particular evidence of a suggestion for combining Li, Epstein, and Mano as is required by *In re Dembiczak*.

The Office Action has also not presented evidence a reasonable expectation of success of this combination of Li, Epstein, and Mano as is required by the MPEP.

The applicant respectfully submits that a *prima facie* case of obviousness against claims 1-3, 20-24, 26-29, 31-37, 39-45 and 47-48 has not been established in the Office Action, and that claims 1-3, 20-24, 26-29, 31-37, 39-45 and 47-48 are in condition for allowance.

⁷ Office Action, page 3.

CONCLUSION

The applicant respectfully submits that all of the pending claims are in condition for allowance, and such action is earnestly solicited. The Examiner is invited to telephone the below-signed attorney at 612-373-6973 to discuss any questions which may remain with respect to the present application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,


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Date 14 March 2005

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 14th day of March, 2005.

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Signature